CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.03/JTG/CSR.01.730d/CUBE/2014-15 26.02.2015

TEST REPORT ON COMPRESSIVE STRENGHT OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

* Agency : **Mr. Jayanth. T. Gowda,**
No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.

* Name of the work : Improvements of Drains and Construction of Culverts Vidyanikethan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.

* Reference : BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : M_{20}

Compressive Strength as o : 28^{th} day

Sample Received on : 26.02.2015

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	29.01.2015	26.02.2015	8.156	478.3	21.26
2	29.01.2015	26.02.2015	8.296	499.3	22.19
3	29.01.2015	26.02.2015	8.335	518.3	23.04

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VISHWANATH .C
Quality Manager

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T-2377

Job No.: CTCE/BBMP/W.No.03/JTG/CSR.01.730d/CUBE/2014-15 27.02.2015

TEST REPORT ON COMPRESSIVE STRENGHT OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
* Name of the work	: Improvements of Drains and Construction of Culverts Vidyanikethan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.
* Reference	: BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
* Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as o	: 28^{th} day
Sample Received on	: 28.02.2015

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	30.01.2015	27.02.2015	8.190	482.3	21.44
2	30.01.2015	27.02.2015	8.235	495.6	22.03
3	30.01.2015	27.02.2015	8.392	523.3	23.26

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Job No: CTCE/BBMP/W.No.03/JTG /STEEL/2014-15 16.01.2015

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Jayanth. T. Gowda.** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
Name of the Work	:	Improvements of Drains and Construction of Culverts Vidyanikethan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
Date of Test	:	16.01.2015
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	514	557	13.20	O.K	O.K

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Job No.: CTCE/BBMP/W.No.03/JTG /STEEL/2014-15 16.01.2015

TEST REPORT ON REINFORCEMENT STEEL

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.

Name of the Work : Improvements of Drains and Construction of Culverts Vidyankerhan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.

Reference : BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015

Date of Test : 16.01.2015

Technical Reference : IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	516	559	13.35	O.K	O.K

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Job No: CTCE/BBMP/W.No.03/JTG /STEEL/2014-15 16.01.2015

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
Name of the Work	:	Improvements of Drains and Construction of Culverts Vidyaniketan School Road, Amur Layout in Amur in Ward No. 03, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
Date of Test	:	16.01.2015
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	16	1.58	520	563	13.55	O.K	O.K

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Job No. CTCE/BBMP/W.No.03/JTG/CSR.01.730d/Pre Cast Slab/2014-15 04.02.2015

TEST REPORT ON CONCRETE CORE (PRE CAST SLAB)

* Name of Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Name of Agency	:	**Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
* Name of work	:	Improvements of Drains and Construction of Culverts Vidyanikethan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Pre cast slab
Sample Received on	:	31.01.2015
Date of Testing	:	04.02.2015

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	77.00	0.379	2506.79	1.54	0.960	32.00	16.30	17.60	16.90	21.12
2	50.00	80.00	0.398	2533.75	1.60	0.965	33.00	16.81	18.15	17.52	21.90
3	50.00	82.00	0.408	2534.06	1.64	0.970	33.50	17.06	18.43	17.87	22.34

* Information is furnished by the Customer/Representative

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Job No.: CTCE/BBMP/W.No.03/JTG/WBM-III/S-T/2014-15 04.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	**Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
Name of Work	Improvements of Drains and Construction of Culverts Vidyaniketan School Road, Attur Layout in Attur in Ward No. 03, BBMP, Bangalore.
Reference	BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Water Bound Macadam (Grade-III Metal)
Date of Testing	04.02.2015

Civil Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **12.35%**

Elongation Index = **13.62%**

Result : Combined Flakiness & Elongation index **25.97%**

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Job No.: CTCE/BBMP/W.No.03/JTG/WBM-III/2014-15

Date: 04.02.2015

REPORT

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency		**Mr. Jayanth. T. Gowda,** No.: 152, 2nd Floor, 3rd Main, Basaveshwara Nagara, Bangalore.
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Reference	:	BBMP/AEE/YNSD/36/2014-15 Dated: 09.01.2015
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	02.02.2015
Date of Testing	:	04.02.2015

Tests on Filler Screen Material (Gravel) (As per MORTH Clause 404.2.6)

Sl. No	Particulars	Test Results	Standards as per MORTH
1.	Liquid Limit, %	16.50	20.0% Maximum.
2.	Plasticity Index, %	Non Plastic	6.0% Maximum.
3	% Finer than 75micron	7.10	10.0% Maximum.

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